

ATTACHMENT B:
SUMMARY OF PREVIOUS SITE INVESTIGATIONS

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Summary of Previous Site Investigations

A. 2003 and 2004 Site Investigations by the Port

In 2003 and 2004, Landau Associates, on behalf of the Port conducted two investigations to determine whether historical and current industrial site activities may have resulted in threatened or actual releases of hazardous substances to Site media (e.g., soil, ground water, adjacent marine sediment, and surface water) and whether any cleanup needs to occur at the Site. These investigations were limited in scope and were not intended to fully define the extent and magnitude of contamination at the Site. As part of the investigations, Landau Associates collected soil, ground water, storm drain sediment, and adjacent marine sediment samples from the Site. The Port's investigations revealed that the Site's soil and the storm drain sediment were contaminated with metals (including arsenic, cadmium, copper, lead, mercury, and zinc) and organotins (including bulk tributyl tin [TBT]) that exceeded the applicable published MTCA Method-A (unrestricted land use or industrial properties) and MTCA Method-B cleanup levels. Diesel- and oil-range petroleum hydrocarbons were also detected in soil samples throughout the Site. Important items of note related to concentrations of contaminants in soil and storm drain sediment include the following:

- The toxicity characteristic leaching procedure (TCLP) result for lead in one soil sample was above the state dangerous waste (WAC 173-303) characteristics criteria.
- Sand blast grit, fine debris, and paint chips were observed in surface soil at the Site.
- The highest concentrations of metals and bulk TBT were found to be in samples from catch basins in storm water discharge lines that discharge near the marine railway.

Landau Associates' sampling results of adjacent marine sediments from the eastern marine sediment area also revealed elevated concentrations of metals (arsenic, cadmium, copper, lead, mercury, and zinc) and organotins (bulk TBT), polycyclic aromatic hydrocarbons (PAHs;

fluoranthene and chrysene), and phthalates (butyl benzyl phthalate and bis[2-Ethylexyl]phthalate). Maximum detected concentrations of these hazardous substances exceed either Sediment Quality Standards (SQS) and/or Cleanup Screening Levels (CSLs) identified in the Sediment Management Standards (WAC chapter 173-204). The full extent and magnitude of contamination at the Site was not defined during the investigations conducted in 2003 and 2004.

B. 2007 Supplemental Site Characterization Work by Everett Shipyard

In 2007, URS, on behalf of Everett Shipyard, performed a supplemental site Investigation at the Site. URS collected a total 32 shallow vadose zone soil samples to assess the extent and magnitude of diesel- and motor-oil range petroleum hydrocarbons and metals. The area investigated was limited to the west-central, and the southwestern portions within Everett Shipyard's leasehold. Highly elevated concentrations of petroleum hydrocarbons found in an area adjacent to the southern boundary of the leasehold and in area between the leasehold line and the shoreline. It was also noted that strong petroleum hydrocarbon odors and staining were observed at various depths in eight soil borings throughout the Site. In addition to petroleum hydrocarbon exceedances, soil concentrations of metals including arsenic, cadmium, copper, lead, mercury, and zinc also exceeded either applicable MTCA Method-A or and/or Method-B Cleanup Levels.